UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,819	10/27/2004	Sunita Chauhan	NAY 0005 PA	5096

23368 7590 06/04/2007

DINSMORE & SHOHL LLP
ONE DAYTON CENTRE, ONE SOUTH MAIN STREET
SUITE 1300
DAYTON, OH 45402-2023

EXAMINER	
ROZANSKI, MICHAEL T	
ART UNIT	**PAPER NUMBER**
3768	

MAIL DATE	DELIVERY MODE
06/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,819	CHAUHAN ET AL.	
	Examiner	Art Unit	
	Michael Rozanski	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-12 and 14-26* is/are pending in the application.

4a) Of the above claim(s) *24-26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-12 and 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/17/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-7, 9-12, and 14-23 in the reply filed on 3/27/07 is acknowledged.

Claim Objections

2. Claims 2, 4-7, 112, 14-16, and 18-21 objected to because of the following informalities:

-In claims 2, 4-7, 112, 14-16, and 18-21, "said target tumour" should be changed to "the target tumour" because the former inferentially claims a part of the human body.

-In claims 5, 14, and 18, the term "said site" should be changed to "the site." In claim 14, the term "said portion" should be changed to "the portion."

-In claim 6, the comma after "array" should be removed.

-In claim 20, the term "said subject tissue" should be changed to "the subject tissue."

-In claims 21, the term "said subject" should be changed to "the subject."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-7, 9-12, and 14-23 rejected under 35 U.S.C. 103(a) as being unpatentable over ***Bechtold et al*** (US 6,778,848) in view of ***Burdette*** (US 5,549,638).

Claims 1-7, 9-12, and 14-23: Bechtold et al disclose an ultrasonic therapy device 6 for irradiating and destroying (ablating) diseased tissue that includes an ultrasonic transducer 28 from which the emission direction can be altered, so that the focus of the emitted sound waves 45 onto a tissue region 9 to be treated can be set with any desired position in the breast 10 (col. 4, lines 53-58). The transducer 28 treats the breast 10 with ultrasound substantially parallel to an orientation within the plane of the body of the patient that lies on a procedure table having an acoustic window aligned with the breast 10 (col. 4, lines 60-64; see figure 2)). The probe is robotically manipulated to align the ultrasonic emission only activated when manipulation is not occurring to provide a safe working envelope, perform step-wise motions in one plane, and sight onto the diseased tissue region with a mechanical adjustment system 40 and electric hydraulic drive (col. 5, lines 46-58).

Bechtold et al do not disclose two or more probes that are configured to give a desired convergent con-focal region. It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate two or more probes in order to permit more efficient treatment.

Bechtold et al do not disclose determining the target tumour by ultrasound (i.e. identification probe) or producing a 3D representation of the portion of tissue. In the same field of endeavor, Burdette teaches of a transducer array 32 whereby pulse echo

data is collected and sent to a contour monitoring subsystem 33 that converts the data into a 3D image of the treatment region (col. 5, lines 9-35). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Burdette in order to enable enhanced viewing of the treatment region.

Bechtold et al do not disclose adjusting at least one of frequency, power, and on-time. In the same field of endeavor, Burdette teaches of control over such elements via treatment control subsystem 86 (col. 6, lines 9-55). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Burdette in order to enable treatment of different patients with different levels of treatments needed.

Bechtold et al do not disclose a programmed controller that operates with predetermined parameters to activate the probes. In the same field of endeavor, Burdette teaches of computer software used with computer control system (col. 5, lines 62-66). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Burdette in order to permit the controller to be able to changed its programmed commands under different parameters.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rozanski whose telephone number is 571-272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR

MR

ELENI MANTIS MERCADER
SUPERVISORY PATENT EXAMINER